

3. (AMENDED) The oligonucleotide molecule according to claim 1 selected from the group consisting of oligonucleotides having the following nucleotide sequences:

22 GCG TCC CGG GTG AGC GGG (SEQ ID NO: 1):

GCC CGC GGG CGC CCG CCC (SEQ ID NO: 2)

TGG GCC CGC CTC GCT CGC (SEQ ID NO: 3):

CGG CGG GGG GCC AAC TAC (SEQ ID NO: 4):

GCG GGT CCA ACG GGC CTG (SEQ ID NO: 5):

CGG GGC TGC CGC GGC GCG (SEQ ID NO: 6): and

oligonucleotides comprising a part of the sequences above having at least ten bases which hybridise to unique rDNA/rRNA sequences of *G. lamblia*.

23 6. (AMENDED) The oligonucleotide molecule according to claim 1 being detectably labelled.

24 9. (AMENDED) The oligonucleotide molecule according to claim 7 wherein the fluorochrome is selected from the group consisting of fluorescein isothiocyanate, also known as FITC, green, cyanine dyes Cy2, Cy3, Cy3.5, Cy5, Cy5.5 that range from green to far red, and Texas Red.

10. (AMENDED) A method for the detection of the presence of viable cells of *G. lamblia* in a sample comprising the steps of:

Q4 (a) adding to the sample an effective amount of a probe consisting of a detectably labelled oligonucleotide molecule which hybridises under medium to high stringency conditions to unique 18S rDNA/rRNA sequences of *G. lamblia*:

(b) creating and maintaining conditions effective for hybridisation of the probe to the 18S rDNA/rRNA of any *G. lamblia* cells present in the sample; and

(c) detecting hybridisation of the probe and *G. lamblia* nucleotides.

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14. (AMENDED) The method according to claim 10 comprising detection via fluorescence *in situ* hybridization (FISH) in which the oligonucleotide probe is labelled with fluorochrome and after hybridization, the resulting fluorescent-labelled cell is detected by epifluorescence microscopy or flow cytometry.

15. (AMENDED) The method according to claim 10 wherein at least two different oligonucleotide probes are used and are distinguished by the use of different labels on each probe.

~ 16. (AMENDED) The method according to claim 15 wherein the oligonucleotide probes are labelled with different fluorochromes and are detected by flow cytometry.

17. (AMENDED) The method according to claim 10 wherein the sample is an environmental sample.